



PHOTO: MATT MORTENSON

Summary: The **September 19, 2017 Flexible Stocking Summit** brought together ranchers from eastern Wyoming and Colorado, researchers and Extension professionals. The meeting was held at the Semiarid Grassland Research Center at the USDA-ARS Central Plains Range near Nunn, CO, and hosted by the USDA-ARS Rangeland Resources and Systems Research Unit. The summit focused on ranchers using stockers (yearlings) for flexibility in their cattle operations.

Summit Vision: To advance innovative and adaptive strategies for ranchers facing highly variable and uncertain livestock/rangeland management contexts through collaboration among researchers, ranchers, and Extension.

Why study stocker operations?

- Using stockers to match animal demand to forage production is an adaptive management strategy to increase profitability across wet/dry periods.
- Researchers and the ranching community want to learn more about what works well for ranchers using these strategies. Current research offers new information and tools to inform ranch decision-making.

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<https://tinyurl.com/ycyqoqnv>

Flexible Stocking Summit Report

A PEER-TO-PEER
DISCUSSION AND
LEARNING EVENT

Hosted by:



Summary of Rancher Discussions

- Producers used a wide range of stocker strategies to adapt their individual operations to seasonal weather, local ranch, and regional market conditions.
- Ranchers agreed that stocker strategies improve flexibility in variable conditions from year-to-year compared to cow-calf only operations. This is important in dry years when ranchers can adjust stocker numbers rather than cow herd size. One noted: *"You just got to adjust as the year progresses."*
- Ranchers said they were unlikely to increase stocking rates even in consecutive wet years. They described practicing "conservative optimism" during wet periods.
- Earlier and more accurate seasonal weather forecasts would be useful, especially in dry years. Summer stocker numbers are typically set by early April. One said, *"You don't know what your grass is going to be like until it's too late to capitalize on it."*
- Even with the availability of better seasonal weather forecasts, ranchers rely on trusted, conservative operation-level strategies because conditions are uncertain. One said, *"You have to have flexibility in so many ways, but you have to be conservative enough so you don't get in trouble in a bad year."* Ranchers described hedging against risk by using multiple winter feeding approaches, buying stockers incrementally throughout the fall/winter, and marketing in multiple ways.
- Marketing strategies are important to successful stocker operations, and often rely on building strong relationships throughout the industry.

1. The Economics of Flexible Stocking- John Ritten, University of Wyoming

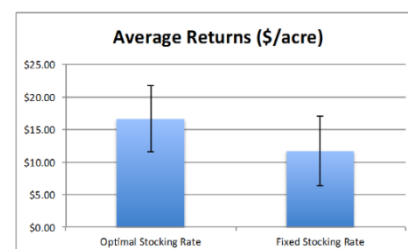


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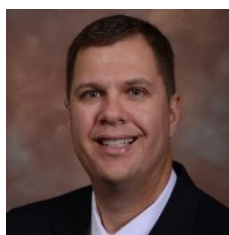
John Ritten developed a model to analyze optimal stocking rates in the face of weather uncertainty. The model compared using a fixed stocking rate (utilizing 45% of forage based on an average year) to an “optimal” stocking rate that adapted to the conditions on a typical Wyoming ranch. The model assumed stocking decisions are made prior to knowledge of growing season precipitation.

Results suggest that ranchers can improve financial returns by adapting their stocking decisions with updated information on standing forage and precipitation forecasts. For more information: <https://doi.org/10.1093/ajae/aaq052>

Benefits of Flexible Stocking

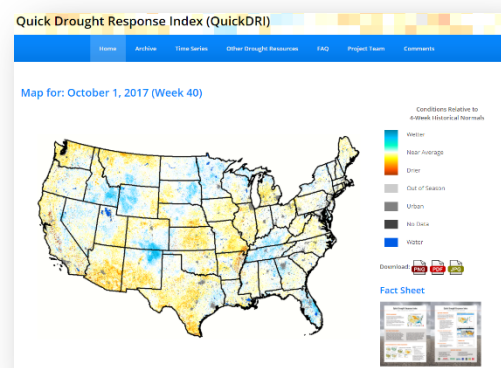


2. QuickDRI: A short-term drought indicator - Brian Fuchs, National Drought Mitigation Center



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QuickDRI was developed to detect rapid-onset, “flash drought” events. It is calculated through the analysis of satellite- and model-based observations of conditions that influence drought. It provides a snapshot of anomalously dry or wet conditions over the past 4 weeks and serves as an indicator of rapidly changing drought conditions. Maps are updated weekly over the continental US and have a 0.6 mile resolution. QuickDRI products available at quickdri.unl.edu include weekly map updates, gridded data, 16+ years of historical maps, and animations of maps for the year, and more!

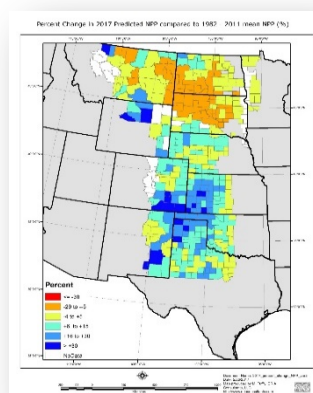


3. GrassCast: An experimental forage prediction tool- Bill Parton, Colorado State University



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The Grassland Productivity Forecast, or “GrassCast” for short, combines observed weather data to current date with seasonal 1- and 3 month weather predictions to estimate total above-ground productivity in the growing season by county. Late-April GrassCast predictions offer promising estimates of productivity in southern Colorado, Mid-May estimates offer similar promise for northern Colorado and late May for Wyoming. GrassCast Forecasts will begin in early April next year, with updates every 2 weeks. Watch for an updated map on the USDA Northern Plains Climate Hub’s [website](http://www.northernplainsclimatehub.org) and on [@PeckAgEc](https://twitter.com/PeckAgEc).



Map: An experimental GrassCast map from late-May for summer 2017 grassland productivity percent change from a county’s 30-year average productivity (1982-2011). Counties in orange: were forecasted to have 5% to 29% less forage in 2017 than their 30-year average, whereas counties in dark blue: were forecasted to have 0% more forage (or better) in 2017.